

10/585208

JP20 Rec'd PCT/PTO 03 July 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :  
Tsuyoshi IKUSHIMA et al. : **Mail Stop: PCT**  
Serial No. NEW : Attorney Docket No. 2006-1059A  
Filed July 3, 2006 :  
PULSE SIGNAL DEMODULATION DEVICE  
[Corresponding to PCT/JP2005/012348  
Filed July 4, 2005]

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

THE COMMISSIONER IS AUTHORIZED  
TO CHARGE ANY DEFICIENCY IN THE  
FEE FOR THIS INFORMATION DISCLOSURE  
STATEMENT.

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the references listed on attached form PTO-1449 and any additional information identified below in paragraph 3. A legible copy of each reference listed on the Form PTO-1449 is enclosed, except a copy is not provided for:

- ☒ each U.S. Patent and U.S. Patent application publication;
- ☐ each reference previously cited in the international application  
PCT/\_\_\_\_\_; and/or
- ☐ each reference previously cited in prior parent application Serial No.  
\_\_\_\_\_.

1a. ☒ This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the  
above-entitled application, **or**

before the mailing of a first Office Action on the merits or the mailing of a first Office  
Action after the filing of an RCE,

ATTACHMENT D

**and thus no certification and/or fee is required.**

- 1b. ☐ This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

- (1) ☐ the certification of paragraph 2 below is provided, **or**  
(2) ☐ the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

- 1c. ☐ This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

**the certification of paragraph 2 below is provided, and  
the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.**

2. It is hereby certified

- a. ☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or  
b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

3. ☐ Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.

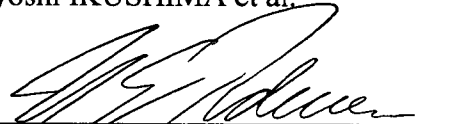
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4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:
- a. ☐ a full or partial English language translation submitted herewith,
  - b. ☒ a foreign patent office search report (in the English language) submitted herewith,
  - c. ☒ the concise explanation contained in the specification of the present application at page 4,
  - d. ☒ the concise explanation set forth in the attached English language abstract,
  - e. ☒ the concise explanation set forth below or on a separate sheet attached to the reference:  
US 5,687,169; US 5,832,035; US 6,549,567; & US 2003/0189975  
corresponds to JP 11-504480
5. ☒ A foreign patent office search report citing one or more of the references is enclosed.

Respectfully submitted,

Tsuyoshi IKUSHIMA et al.

By



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July 3, 2006

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FORM PTO 1449 (modified)

ATTY DOCKET NO.  
2006-1059ASERIAL NO.  
NEWU.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)APPLICANT  
Tsuyoshi IKUSHIMA et al.

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Date Submitted to PTO: July 3, 2006

FILING DATE  
July 3, 2006

GROUP 2613

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/M.R.S./	AA	5,687,169	11/1997	Fullerton			
/M.R.S./	AB	5,832,035	11/1998	Fullerton			
/M.R.S./	AC	6,549,567	4/2003	Fullerton			
/M.R.S./	AD	2003/0189975	10/2003	Fullerton			
	AE						
	AF						
	AG						
	AH						
	AI						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
/M.R.S./	AJ	11-504480	4/1998	JP			
/M.R.S./	AK	2004-350284	12/2004	JP			abstract
	AL						
	AM						
	AN						

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

/M.R.S./	AO	Vincenzo Lottici et al., "Channel Estimation for Ultra-Wideband Communications", IEEE Journal on Selected Areas in Communications, Vol. 20, Issue 9, December 2002, pgs. 1638-1645.
/M.R.S./	AP	Zhengdao Wang et al., "Ultra Wide-Band Communications With Blind Channel Estimation Based on First-Order Statistics", IEEE International Conference on Acoustics, Speech and Signal Processing 2004, Vol. 4, May 17, 2004, pgs. IV-529 to IV-532.
/M.R.S./	AQ	Takatoshi Ogawa et al., "UWB over Fiber Denso System no Kaihatsu to Denpan Sokutei eno Oyo", 2004 Nen the Institute of Electronics, Information and Communication Engineers Sogo Taikai Koen Ronbunshu, Kiso Kyokai, March 8, 2004, pg. 170.

EXAMINER

/M. R. Sedighian/

DATE CONSIDERED

07/15/2009